XINRAN WANG

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EDUCATION

University of Minnesota, Department of Computer Science and Engineering — *Minneapolis, MN, US*
Ph.D. candidate in Computer Science (ABD) — Expected May 2026

University of Minnesota, School of Statistics — *Minneapolis, MN, US*
Master of Science in Statistics, minor in Computer Science — Jan 2021

Tsinghua University, School of Economics and Management — *Beijing, China*
Master of Science in Economics — Jul 2016
Bachelor of Science in Economics and Finance — Jul 2012

Harvard University, Law School — *Cambridge, MA, US*
Visiting Research Fellow — Jan - Nov 2015

RESEARCH INTEREST

AI trustworthiness (human values alignment, safety moderation), Inference Optimization for Multimodal Foundation Models

SELECTED PUBLICATIONS

[1] **X. Wang**, Q. Le, A. Ahmed, E. Diao, Y. Zhou, N. Baracaldo, J. Ding, A. Anwar, "MAP: Multi-Human-Value Alignment Palette," *International Conference on Learning Representations (ICLR)*, 2025, **oral presentation** (top 1.8%).

[2] **X. Wang**, E. Diao, Q. Le, J. Ding, A. Anwar, "AID: Adaptive Integration of Detectors for Safe AI with Large Language Models," *Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL)*, 2025

[3] Q. Le, E. Diao, Z. Wang, **X. Wang**, J. Ding, L. Yang, A. Anwar, "Probe Pruning: Accelerating LLMs through Dynamic Pruning via Model-Probing," *International Conference on Learning Representations (ICLR)*, 2025

[4] A. Khan, **X. Wang**, Q. Le, A. Khan, H. Ali, J. Ding, A. Butt, A. Anwar, "PI-FL: Personalized and Incentivized Federated Learning," *IEEE International Parallel & Distributed Processing Symposium(IPDPS)*, 2025.

[5] **X. Wang**, Q. Le, A. Khan, J. Ding, A. Anwar, "ICL: An Incentivized Collaborative Learning Framework," *IEEE International Conference on Big Data (BigData)*, 2024.

[6] Q. Le, E. Diao, **X. Wang**, V. Tarokh, J. Ding, A. Anwar, "DynamicFL: Dynamic Federated Learning with Communication Resource Allocation," *IEEE BigData*, 2024, **best student paper award.**

[7] A. Merenstein, **X. Wang**, V. Tarasov, P. Agarwal, S. Guthridge, K. Thakkar, K. Wu, A. Anwar, E. Zadok, "Balancing Costs and Durability for Serverless Data," *International Conference on Massive Storage Systems and Technology (MSST)*, 2024.

[8] C. Howe, **X. Wang**, and A. Anwar. "Robust and Efficient Quantum Communication," *Proceedings of the 2023 International Workshop on Quantum Classical Cooperative*, 2023.

[9] A. Khan, Y. Li, **X. Wang**, S. Haroon, H. Ali, Y. Cheng, A. Anwar, "Towards cost-effective and resource-aware aggregation at Edge for Federated Learning," *IEEE BigData*, 2023.

[10] Q. Le, E. Diao, **X. Wang**, A. Anwar, V. Tarokh and J. Ding, "Personalized Federated Recommender Systems with Private and Partially Federated AutoEncoders," *Asilomar Conference on Signals, Systems, and Computers,* 2022.

[11] **X. Wang**, J. Zhang, M. Hong, Y. Yang, J. Ding, "Parallel Assisted Learning," *IEEE Transactions on Signal Processing (TSP)*, 2022.

[12] **X. Wang**, Y. Xiang, J. Gao, J. Ding, "Information Laundering for Model Privacy," *International Conference on Learning Representations (ICLR)*, 2021, **spotlight presentation** (top 5.6%).

[13] X. Xian, **X. Wang**, J. Ding, R. Ghanadan, "Assisted Learning: A Framework for Multiple Organizations' Learning," *Advances in Neural Information Processing Systems (NeurIPS)*, 2020, **spotlight presentation** (top 3%).

INDUSTRIAL EXPERIENCE

Senior Data Scientist, **General Mills** *Minneapolis, MN* — Apr 2021 - Nov 2022
- Focused on Strategy and Growth. Used machine learning to identify novel growth opportunities
- Led the development and implementation of predictive intelligence models to support business objectives

Algorithms and Software Engineer, **Kolmostar Inc.** *Fremont, CA* — Jun - Aug 2019
- Built a root cause analysis tool for chip malfunctioning using online streaming data from satellite signals
- Developed a python-based anomaly detection system, which increased antenna malfunction detection accuracy by 20%

Headquarter Management Trainee, **Shanghai Pudong Development Bank** *Shanghai, China* Jul 2016 - Dec 2018
- Rotated in corporate banking, credit card, and financial market
- Performed risk management and reported to the Chief Risk Officer

PRIOR RESEARCH EXPERIENCE

Research Assistant, **University of Minnesota** *Minneapolis, MN* — Jan 2019 - Jan 2021
- Developed theory and algorithms for collaborative machine learning, data privacy, and model security, with publications at top AI/ML conferences and a US patent

Statistical Consultant, **University of Minnesota** *Minneapolis, MN* — Jun - Aug 2020
- Designed multi-armed bandit models to optimize spinal cord stimulation for E-STAND clinical trials and built generalized linear mixed-effect models for validation

Visiting Scholar, **Harvard University** *Cambridge, MA* — Jan - Nov 2015
- Analyzed firm-level administrative data to research tax reform policies and their business impact, using econometric models to find insights that informed policy recommendations.

HONORS

3M Science and Technology Graduate Fellowship, University of Minnesota	2023 - 2027
CS-IDEA Fellowship, Department of Computer Science & Engineering, University of Minnesota	2023
John N. Quiring Fellowship in Statistics (one per year), School of Statistics, University of Minnesota	2020
Outstanding Graduate Award (top 2%), Tsinghua University	2016
Outstanding Thesis Award (top 2%), Tsinghua University	2016

SKILLS

Python, SQL, R, Git, Hadoop, Spark

LEADERSHIP & COMMUNITY SERVICES

Women in Machine Learning & Data Science Twin Cities	Feb 2020 - present
Golden Toasters Toastmasters Club	Oct 2020 - present
Consultant at the Department of Neurosurgery	Jun - Aug 2020
Cross-Cultural Leadership Retreat	Mar 2019
Volunteer for Harvard Law School Commencement 2015	May 2015